

**IN THE CLAIMS:**

All claims not withdrawn or canceled are reiterated for the convenience of the Examiner. Please cancel Claims 47 and 48 without prejudice. Please amend Claims 9, 20, 25-26, 30, 31, 33, 37, ~~39~~ 40, 43, 44, 49, and 50 as follows:

9. (Thrice Amended) An isolated or recombinant polynucleotide that:

a) hybridizes under stringent [wash] hybridization conditions of at least 55° C and less than 400 mM salt to the open reading frame of SEQ ID NO: 1 or 3; and

b) encodes a polypeptide that:

i) is expressed on activated T cells; and

ii) specifically binds a polyclonal antibody generated against <sup>12 contiguous amino acids of</sup>

SEQ ID NO: 2 or 4.

11. (Reiterated) A recombinant expression or replicating vector comprising the isolated or recombinant polynucleotide of Claim 9.

12. (Reiterated) A kit comprising

a) the isolated or recombinant polynucleotide of Claim 9; and

b) instructions for use or disposal of reagents in said kit.

17. (Reiterated) A method of producing a polypeptide, comprising expressing the recombinant expression or replication vector of Claim 11 in a host cell and isolating said polypeptide, thereby producing said polypeptide.

18. (Reiterated) A cell comprising the recombinant expression or replication vector of Claim 11.

19. (Reiterated) A recombinant or isolated polynucleotide of Claim 9, that encodes at least 15 contiguous amino acid residues of SEQ ID NO: 4.

20. (Thrice Amended) The isolated or recombinant polynucleotide of Claim 19, <sup>6</sup>that encodes at least 17 contiguous amino acid residues of SEQ ID NO: 4 [wherein said contiguous amino residues number at least 17].

GORMAN, et al. U.S.S.N. 08/911,423

page 2 of 9

23. (Reiterated) The isolated or recombinant polynucleotide of Claim 9, wherein said hybridization occurs over the entire open reading frame of SEQ ID NO: 1.

24. (Reiterated) The isolated or recombinant polynucleotide of Claim 9, wherein said polynucleotide is a variant due to the degeneracy of the genetic code.

12/25. (Twice Amended) The isolated or recombinant polynucleotide of Claim 9, wherein said [wash] hybridization conditions are

- a) at least 60° C;
- b) less than 150 mM salt; or
- c) both a) and b).

13/26. (Twice Amended) A method of producing a polynucleotide duplex comprising contacting the isolated or recombinant polynucleotide of Claim 9 with a second polynucleotide for a time sufficient to produce said duplex under stringent [wash] hybridization conditions of at least 60° C and less than 250 mM salt; thereby forming said duplex.

28. (Reiterated) The isolated or recombinant polynucleotide of Claim 19, which comprises:

- a) at least 57 contiguous nucleotides from the mature protein coding portion of SEQ ID NO: 1 or 3 that lacks an N terminal leader sequence; or
- b) is a variant due to the degeneracy of the genetic code.

29. (Reiterated) The isolated or recombinant polynucleotide of Claim 28, wherein:

- a) said contiguous nucleotides are from nucleotides 26-165 or nucleotides 191-241 of SEQ ID NO: 4.

23 30. (Twice Amended) An isolated or recombinant polynucleotide encoding a polypeptide that[:

- a) ] has a conservative amino acid substitution of a mature polypeptide of SEQ ID NO: 2 or 4 that lacks an N terminal leader sequence[;
- b) is a natural allelic variant of the mature native polypeptide of SEQ ID NO: 2 or 4 that lacks an N terminal leader sequence; or
- c) is a species variant of the mature native polypeptide of SEQ ID NO: 2 or 4 that lacks an N terminal leader sequence].

D4 24  
31. (Twice Amended) The isolated or recombinant polynucleotide of Claim 30, comprising<sup>a</sup> [which is] sequence<sup>of</sup> from SEQ ID NO: 3 [4]. 23

32. (Reiterated) The isolated or recombinant polynucleotide of Claim 30, comprising:

- a) nucleotides 124 to 751 of SEQ ID NO: 1; or
- b) nucleotides 54 to 723 of SEQ ID NO: 3.

26 33. (Twice Amended) A method of producing a polynucleotide duplex comprising contacting the isolated or recombinant polynucleotide of Claim 30 with a second polynucleotide for a time sufficient to produce said duplex under stringent [wash] hybridization conditions of at least 60° C and less than 250 [200] mM salt; thereby forming said duplex. 23

34. (Reiterated) A recombinant expression or replicating vector comprising the isolated or recombinant polynucleotide of Claim 30.

35. (Reiterated) A cell comprising the recombinant expression or replication vector of Claim 34.

36. (Reiterated) A method of producing an antigenic polypeptide, comprising expressing the recombinant expression or replication vector of Claim 34 in a host cell and isolating said antigenic polypeptide, thereby producing said antigenic polypeptide.

GORMAN, et al. U.S.S.N. 08/911,423

page 4 of 9

37. (Reiterated) A recombinant or isolated polynucleotide that hybridizes to the open reading frame of SEQ ID NO: 1 or 3 under stringent hybridization and wash conditions of at least 55°C, a salt concentration of less than 250 mM, and 50% formamide.

39. (Cancelled) The polynucleotide of Claim 37, further encoding:  
a) less than three conservative amino acid substitution[s] of a mature polypeptide of SEQ ID NO: 2 or 4 that lacks an N terminal leader sequence.

31/ 40. (Twice Amended) A recombinant expression or replicating vector comprising:

a) said polynucleotide of Claim <sup>30</sup>37; or

b) a polynucleotide sequence encoding the mature polypeptide of SEQ ID NO: 4 that lacks an N terminal leader sequence.

41. (Reiterated) A cell comprising the recombinant expression or replication vector of Claim 40.

42. (Reiterated) A method of producing an antigenic polypeptide, comprising expressing the recombinant expression or replication vector of Claim 41 in a host cell and isolating said polypeptide, thereby producing said polypeptide.

34/ 43. (Twice Amended) A method of producing a polynucleotide duplex comprising contacting said polynucleotide of Claim <sup>30</sup>37 with a second polynucleotide for a time sufficient to produce said duplex under stringent [wash] hybridization conditions of at least 60° C and less than 250 mM salt; thereby forming said duplex.

14/ 44. (Amended) The polynucleotide of Claim <sup>31</sup>9, which comprises:

a) a sequence encoding[es] a mature polypeptide of SEQ ID NO: 2 or 4, that lacks an N terminal leader sequence; or

b) [comprises] a sequence encoding an extracellular domain of SEQ ID NO: 2 or 4.

15/45. (Amended) The polynucleotide of Claim 9, which:

a) comprises a sequence encoding a mature polypeptide coding portion of SEQ ID NO: 1 or 3, that does not encode an N terminal leader sequence; or

b) [c)] comprises a sequence encoding an intracellular domain of SEQ ID NO: 2 or 4.

46. (Reiterated) The isolated or recombinant polynucleotide of Claim 9, which is:

a) is attached to a solid substrate; or

b) is detectably labeled.

47. (Canceled) The isolated or recombinant polynucleotide of Claim 9, which is:

a) is in a sterile composition;

b) encodes an antigenic polypeptide having at least 12 amino acid residues;

or

c) is synthetically produced.

48. (Canceled) The isolated or recombinant polynucleotide of Claim 47, wherein said contiguous amino acid residues number at least 21.

39/49. (Amended) The polynucleotide of Claim 37: 30

a) wherein said [wash] hybridization conditions are at least 70°C; or

b) comprises at least 36 contiguous nucleotides of the mature coding portion of SEQ ID NO: 1 or 3 that does not encode an N terminal leader sequence.

30/50. (Amended) The polynucleotide of Claim 37: 30 comprising:

a) that comprises encodes an antigenic polypeptide; or

b) comprises] <sup>a</sup> polynucleotide sequence encoding an antigenic polypeptide of at least 20 contiguous amino acids of the mature [coding of] SEQ ID NO: 4 polypeptide that lacks an N terminal leader sequence.

Please add new claims 51-56 as follows:

17/51. (New) The isolated or recombinant polynucleotide of Claim 9, in a sterile composition.

GORMAN, et al. U.S.S.N. 08/911,423

page 6 of 9

18 52. (New) The isolated or recombinant polynucleotide of Claim 51<sup>17</sup>, that encodes at least 21 contiguous amino acid residues.

E 19 53. (New) The isolated or recombinant polynucleotide of Claim 9<sup>17</sup>, wherein the isolated polynucleotide is synthetically produced.

20 54. (New) The isolated or recombinant polynucleotide of Claim 53<sup>19</sup>, that encodes at least 21 contiguous amino acid residues.

D 21 55. (New) The isolated or recombinant polynucleotide of Claim 9<sup>1</sup>, that encodes an antigenic polypeptide having at least 12<sup>contiguous</sup> amino acid residues.

22 56. (New) The isolated or recombinant polynucleotide of Claim 55<sup>21</sup>, wherein said contiguous amino acid residues number at least 21.

#### Remarks

Applicants respectfully request examination and consideration of the newly amended claims and reconsideration of the application in view of the following.

#### Table of Contents

- I. Status of the Application
- II. The Invention
- IV. The Amendments
- VI. Summary

#### I. Status of The Application

Claims 1-43 are pending. Claims 9-12, 17-20, and 23-42 were acknowledged allowable if the 35 U.S.C. §112, ¶1 and 2 rejections were overcome. Applicants believe the amended and newly presented claims are fully supported, introduce no new matter, and overcome all prior rejections or objections. Attached in Appendix A, for the Examiner's convenience, is a listing of the revised claims. Applicants believe no new issues are raised in the presently pending or presented claims and therefore, Applicants respectfully request examination of the newly amended and presented claims.